

WHAT IS CLAIMED IS:

1. An image input apparatus that inputs an image of an original, comprising:

photoelectric conversion means including a first line sensor and a second line sensor, the first line sensor being composed of a plurality of line sensors having different color filters on light receiving surfaces thereof, and the second line sensor having no color filter on a light receiving surface thereof; and

10 correction means for correcting output signals from the plural line sensors of the first line sensor of the photoelectric conversion means, using an output signal from the second line sensor of the photoelectric conversion means.

15 2. The image input apparatus according to claim 1, wherein the photoelectric conversion means is configured such that the first line sensor is composed of a RED line sensor having a RED color filter, a GREEN line sensor having a GREEN color filter and a BLUE line sensor having a BLUE color filter, and a size of each of photodiodes, which constitute each of the RED line sensor, GREEN line sensor and BLUE line sensor, is greater than a size of each of photodiodes, which constitute the second line sensor.

20 25 3. The image input apparatus according to claim 1, wherein in the photoelectric conversion means the second line sensor has a higher resolution than

each of the line sensors that constitute the first line sensor.

4. The image input apparatus according to
claim 1, wherein the correction means performs
5 correction by executing a resolution-enhancing process
for each of output signals from the plural line sensors
that constitute the first line sensor, using the output
signal from the second line sensor.

5. The image input apparatus according to
10 claim 1, wherein the correction means executes a
resolution-enhancing process for each of output signals
from the plural line sensors that constitute the first
line sensor, using the output signal from the second
line sensor, and outputs each of the output signals
15 that are subjected to the resolution-enhancing process
and the output signal from the second line sensor.

6. The image input apparatus according to
claim 1, wherein the correction means executes a
resolution-enhancing process for each of output signals
20 from the plural line sensors that constitute the first
line sensor, using the output signal from the second
line sensor, and outputs each of the output signals
that are subjected to the resolution-enhancing process.

7. An image input apparatus that inputs an image
25 of an original, comprising:

photoelectric conversion means including a first
line sensor and a second line sensor, the first line

sensor being composed of a plurality of line sensors having different color filters on light receiving surfaces thereof, and the second line sensor having no color filter on a light receiving surface thereof;

5 image region discrimination means for discriminating an image region of each of output signals from the plural line sensors that constitute the first line sensor, and outputs discrimination information; and

10 correction means for correcting, on the basis of the discrimination information from the image region discrimination means, the output signals from the plural line sensors of the first line sensor of the photoelectric conversion means, using an output signal from the second line sensor of the photoelectric conversion means.

15 8. The image input apparatus according to claim 7, wherein the photoelectric conversion means is configured such that the first line sensor is composed of a RED line sensor having a RED color filter, a GREEN line sensor having a GREEN color filter and a BLUE line sensor having a BLUE color filter, and a size of each of photodiodes, which constitute each of the RED line sensor, GREEN line sensor and BLUE line sensor, is equal to a size of each of photodiodes, which constitute the second line sensor.

20 9. The image input apparatus according to claim 7, wherein the image region discrimination means

discriminates a position of a black part such as a black character or a black line of each of the output signals from the plural line sensors of the first line sensor, and outputs discrimination information.

5 10. The image input apparatus according to claim 7, wherein the correction means performs correction by executing, on the basis of the discrimination information from the image region discrimination means, a black character substitution process for each of the output signals from the plural line sensors of the first line sensor, using the output signal from the second line sensor.

10 15. The image input apparatus according to claim 7, wherein the correction means executes, on the basis of the discrimination information from the image region discrimination means, a black character substitution process for each of the output signals from the plural line sensors of the first line sensor, using the output signal from the second line sensor, and produces the output signals, which are subjected to the black character substitution process, and the output signal from the second line sensor.

15 20. The image input apparatus according to claim 7, wherein the correction means executes, on the basis of the discrimination information from the image region discrimination means, a black character substitution process for each of the output signals

from the plural line sensors of the first line sensor, using the output signal from the second line sensor, and produces the output signals that are subjected to the black character substitution process.

5 13. An image processing method for an image input apparatus that inputs an image of an original, comprising:

scanning the original using photoelectric conversion means including a first line sensor and 10 a second line sensor, the first line sensor being composed of a plurality of line sensors having different color filters on light receiving surfaces thereof, and the second line sensor having no color filter on a light receiving surface thereof; and

15 correcting output signals from the plural line sensors of the first line sensor, using an output signal that is produced from the second line sensor of the photoelectric conversion means by the scanning of the original.

20 14. The image processing method according to claim 13, further comprising:

discriminating an image region of each of output signals from the plural line sensors that constitute the first line sensor of the photoelectric conversion means, and outputs discrimination information; and

25 correcting, on the basis of the discrimination information, the output signals from the plural line

sensors of the first line sensor of the photoelectric conversion means, using an output signal from the second line sensor of the photoelectric conversion means.